PATENT
24GA05998-7 (8564-000045/US/DVA)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	William E. Russell, II et al.	Conf.:	8107
Appl. No.:	10/608,086	Group:	3663
Filed:	June 30, 2003	Examiner:	Ricardo Palabrica
For:	SYSTEM AND METHOD FOR CONTINUOUS OPTIMIZATION OF CONTROL VARIABLES DURING OPERATION OF A NUCLEAR REACTOR		
Docket No.:	24GA05998-7 (8564-000045/US/DVA)		

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APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. §41.37

Sir:

In accordance with the provisions of 37 C.F.R. §41.37, Appellants submit the following:

I. REAL PARTY IN INTEREST:

The real party in interest in this appeal is General Electric Company. Assignment of the application was submitted to the U.S. Patent and Trademark Office and recorded on at Reel 012421, Frames 0963-0966.

II. RELATED APPEALS AND INTERFERENCES:

There are no known appeals or interferences that will affect, be directly affected by, or have a bearing on the Board's decision in this Appeal.

III. STATUS OF CLAIMS:

Claims 31-41 are pending in the application, with claim 31 being written in independent form.

Claims 31-39 stand rejected under 35 U.S.C. § 103(a) as being obvious over US Pat 4,080,251 to Musick ("Musick") in view of any one of "Winning Strategies for Maintenance Optimization at U.S. NPPs" by Dozier et al. ("Dozier"), "The Energy Supply for the United States & the Role of Nuclear Energy" by Knollenberg ("Knollenberg"), and "The Economics of Nuclear Energy" by Pryor, Jr. ("Pryor").

Claims 40 and 41 stand rejected under 35 U.S.C. § 103(a) as being obvious over Musick in view of any one of Dozier, Knollenberg, and Pryor, in further view of US Pat 5,009,833 to Takeuchi et al. ("Takeuchi").

Claims 31-41 are being appealed.

IV. STATUS OF AMENDMENTS:

Amendments in the After Final Amendment filed February 10, 2005 have been entered, and no further Amendments have been presented.

V. SUMMARY OF CLAIMED SUBJECT MATTER:

The following explains the subject matter set forth in each claim argued on appeal by way of example embodiments in the specification by page and line number, and in the drawings, if any, by reference characters only to satisfy 37 C.F.R. § 41.37(c)(1)(v). This concise explanation relies on example embodiments from the specification to describe the claims; however, the claims recite subject matter not limited to these example embodiments. Independent claim 31 is argued on appeal and discussed below; dependent claim 40 is argued separately and discussed below.

Claim 31

Claim 31 is directed to a method of determining independent control variable values used in a operating a nuclear reactor. An independent control variable is an operational control that may be directly modified by the plant operators, for example, control rod positioning and insertion.[1] Such independent control variables are determined through an optimization process on state-point data, which includes instantaneous values of both independent control variables and dependent performance variables.[2] The method of gathering state-point data and the optimization process are described below with reference to claim 31.

FIGURE 1A shows an example hardware arrangement of components for providing a reactor control-variable optimization system. In this example, one or more host processors 10 are coupled via a local area network (LAN) 11, a wide area network (WAN) 17 or the Internet (TCP/IP network). Each processor 10 may host reactor simulation software and/or

[1] *See* Specification as filed ("Spec") ¶ [0002], ll. 1-12; ¶ [0033], ll. 7-10.
[2] *See* Spec ¶ [0034], ll. 3-9.

client software for accessing and displaying information provided via a graphic user interface (GUI) on a display device (12) coupled to the processor. The optimization system components may include one or more database storage devices 14 accessed via, for example, one or more database servers 13. In addition, the optimization system may include remotely located host processors and/or database storage devices in communication with local LAN 11 via connection to a remote LAN/WAN 17 or over the Internet, for example, via TCP/IP servers 15 and 16.[3]

Referring now to FIGURE 1B, a data processing flow diagram illustrates an example system for continuous optimization of multiple operational control-variables of a nuclear reactor in accordance with the present invention. The flowchart shown provides a general processing overview of an example system and illustrates two fundamental operational processing modes: a manual input constraint definition process (manual loop 10) and an automated optimization updating process (automated loop 100). By way of the manual process, updated results from a general database 101 may be viewed (102) by using a conventional display device (12) driven by, for example, a graphical user interface (GUI). Figure 2 illustrates example content of the general database, for an example general database 201. Should a user (e.g., a design engineer) desire to modify or test an alternative operating strategy 103, such modifications may also be initiated and input (104) through the (GUI) 104. FIGURE 3 illustrates example strategy change issues.[4]

Alternatively, in the automated loop, processing takes place as shown in FIGURE 4. As shown, new updated state-point (described in detail below) is determined and, using data

[3] *See* Spec ¶ [0030].
[4] *See* Spec ¶ [0032].

from the general database 401 (database 101 in FIGURE 1B), a comparison 402 is performed to determine if the most recent updated state-point is different than the state-point obtained from a previously run simulation. If the latest state-point has not changed (403), state-point comparisons 402 are continued. If the state-point has changed (404), a copy of the new state-point is copied to Optimization Inputs Database 409 (database 106 in FIGURE 1B). The "receiving state-point data" step of claim 31 reads on at least this portion of the specification. In addition, a small change is made to the operational strategy (405) to reflect the change in the starting exposure. With the strategy starting point updated and the small modification made to reflect the new starting point time, an optimization request flag is set (406) to identify the system for an optimization request.[5]

Once selected optimization inputs have been modified, the various inputs are stored, for example, within optimization inputs database 106, which may be distinct from, or form a portion of, general database 101. FIGURE 5 illustrates example optimization inputs. Next, using the appropriate inputs stored in optimization inputs database 106, an optimization program 107 determines appropriate values for the independent control-variables and provides resulting values for all dependent variables. The "performing an optimization process" step recited in claim 31 reads on at least this step. This optimization output 108 is stored to general database 101 for subsequent access and viewing. Optimized values for operational control variables (e.g., rod pattern, flow strategy, sequence exchange times, sequence lengths, etc.) are provided as displayable outputs for use in the operational management of the nuclear reactor core..[6]

[5] *See* Spec ¶ [0054].
[6] *See* Spec ¶ [0033].

As previously mentioned one aspect of the present invention provides automatic updates to control-variables and automatically updates the status of a currently operating reactor based on a predefined preferred operating strategy. To implement this automated aspect of the invention, an updated nuclear reactor state-point is first obtained from a general database 101 (loop 100). The updated state-point data may be produced, for example, from actual monitoring devices and sensors on the reactor or as a result of simulating reactor operations by a conventional reactor simulator process or program provided on one or more host processors 10 connected via networks 11, 17 or 18 of FIGURE 1A. The updated reactor state-point information is then used to make modifications to various optimization input parameters stored in Optimization Inputs database 106 based on an operational strategy set up during the manual input loop process (10).[7] The "receiving state-point data" step of claim 31 also reads on at least this portion of the disclosure.

Claim 40

Claim 40 is dependent from claim 31 and, in addition to the elements of claim 31, recites a specific optimization process directed to a method of determining independent control variable values used in a operating a nuclear reactor. Specifically, the process includes simulating reactor performance to generate dependent performance variables.[8] Transfer functions may then be generated that mathematically represent the relationship between the generated dependent performance variables and the simulation input.[9] The transfer functions are then used to determine proper independent control variable values to

[7] *See* Spec ¶ [0034].
[8] *See* Spec ¶ [0057], ll. 4-7.
[9] *See* Spec ¶ [0057], ll. 7-14.

be implemented in reactor operation. Methods of generating transfer functions and porting information between simulations is discussed below with reference to claim 40.

An example optimization methodology according to an embodiment of the present invention is illustrated in FIGURE 6B. As indicated at block 612, the most recent simulation state-point (501) information and user-specified optimization constraints (505) are obtained from Optimization Inputs database 611. Next, at block 613, the processing of two reactor simulator cases is initiated for each independent variable in order to determine the functional relationship of dependent variables to a change in a specified independent variable. The "first simulating" step of claim 40 reads on at least this portion of the disclosure. Next, at block 614, the generation of a polynomial response surface is determined by solving for the coefficients of the polynomial. (The response surface transfer functions being normalized about the center-point to prolong usefulness during the optimization phase). Since there may be as many as several hundred independent variables, and a couple hundred thousand dependent variables for each independent variable, the above processing may potentially result in producing millions of polynomial response surface transfer functions. [10]

Namely, each simulation is representative of a different virtual operational case and comprises different sets of values for various reactor core operational parameters (i.e., the independent control-variables). The reactor core simulations provide output data that is indicative of selected performance parameters, which reflect the operational state of the reactor throughout the duration of a reactor core fuel cycle. Once all reactor core simulations are completed, the simulation output data for each control-variable case is accumulated, normalized and mapped by a host processor to corresponding high-order

[10] *See* Spec ¶ [0057].

polynomials that fit the reactor core simulation results data for each control-variable case. Coefficients that uniquely describe each polynomial are collected in an associated memory device as a multidimensional data array that serves as a type of virtual "response surface".[11] The "generating transfer functions" step of claim 40 reads on at least these portions of the disclosure.

Once the transfer function polynomial response surface is generated, it can be used to "predict" the response of the dependant variables for a given change in value of an independent variable 615. Consequently, computing simulated value changes for each of the independent variables provides an estimate of an optimum modification (i.e., change in quantitative value) which may be made to each independent variable. When such predictions indicate that an improvement exists relative to a previous iteration, the scenario is simulated using a reactor operation simulator which may, for example, be a simulation program or process performed by one or more other host processors coupled to the network. A looping 619 of computing polynomial response surface predictions 615 and performing simulator calibrations/corrections is repeated until either: 1) the response surface becomes inaccurate, 2) a predetermined number of iterations is reached, or 3) until no further significant improvements to the computed solution are realized. Once loop 619 is exited, the range of the independent variable selection is reduced (616) and a new response surface is regenerated 620. This larger response surface computation loop (620) is pursued until changes to an independent variable no longer improve the computed solution by a predetermined margin which may be specified by the user-input constraints. Once the optimization is complete, computed optimization output values 617 are stored in an

[11] *See* Spec ¶ [0024].

optimization database 618.[12] The "determining" step of claim 40 reads on at least these portions of the disclosure.

In this manner, the virtual response surface acts as a cyber-workspace and repository for storing resultant output data from many control-variable case simulations. The polynomials are used to predict quantitative values (i.e., dependent variables) for the reactor performance parameters over a limited range of independent control-variable values. The predicted performance parameter values from each polynomial predictor are compared using an objective function to determine which particular associated independent control-variable(s) is likely to produce the greatest improvement.[13]

FIGURE 7 is a block diagram illustrating example contents of information stored in an Optimization Output database 702, provided on a storage device in the system network. Three primary categories of optimization database contents are illustrated which include: 1) optimization status data 704, 2) optimization independent control-variables 705, and 3) resulting optimization dependent variable output predictions 706. The Optimization Status data, 704 may include, but is not limited to, comparison results to design values, cycle length improvement, optimization results, optimization path, optimization status, and strategy comparisons. The Optimization independent Control-Variables, 705 may include, for example, the location of the preferable control blades and equivalent blade groupings at all future requested exposures, the preferable core average flow at all future requested exposures, and the preferable sequence exchange exposure intervals. The Optimization Dependent variable output predictions, 706, may include (but are not limited to), for

[12] *See* Spec ¶ [0058].
[13] *See* Spec ¶ [0025].

example, LHGR results, CPR results, cycle exposure, bundle exposure, core average exposure, blade depletions, core inlet enthalpy, LPRM data, hot reactivity bias, cold reactivity bias, thermal power, and electric power. [14]

VI. GROUNDS OF REJECTION TO BE REVIEW ON APPEAL:

Appellants seek the Board's review of the following rejections:

1. Claims 31-39 under 35 U.S.C. §103(a) being obvious over US Pat 4,080,251 to Musick ("Musick") in view of any one of "Winning Strategies for Maintenance Optimization at U.S. NPPs" by Dozier et al. ("Dozier"), "The Energy Supply for the United States & the Role of Nuclear Energy" by Knollenberg ("Knollenberg"), and "The Economics of Nuclear Energy" by Pryor, Jr. ("Pryor").
2. Claims 40-41 under 35 U.S.C. § 103(a) as being obvious over Musick in view of any one of Dozier, Knollenberg, and Pryor, in further view of US Pat 5,009,833 to Takeuchi et al. ("Takeuchi").

VII. ARGUMENTS:

A. CLAIMS 31-41 ARE NOT OBVIOUS UNDER 35 U.S.C. § 103(a).

With respect to the rejections under § 103, claims 31-39 rise and fall together and claims 40-41 rise and fall together.

i. Claims 31-39

The Examiner rejects independent claim 31 over Musick in view of any one of Dozier, Knollenberg, and Pryor.[15] The Examiner states that Musick teaches each element of

[14] *See* Spec ¶ [0059].

independent claim 31, with the exception of explicitly[16] teaching an optimization of state-point data that produces one or more independent control variables.[17] The Examiner relies on Dozier, Knollenberg, or Pryor to teach that such an optimization and resulting independent control variables are inherent in Musick.[18]

Applicants respectfully submit that Musick fails to teach or suggest "an optimization process . . . based on the received state-point data to generate one or more independent control variable values" as recited in claim independent 31. Specifically, Musick is directed to using modified plant parameters to generate operating limits for safe operation termination[19], which is wholly distinct from a general optimization process that is based on state-point data or generates an independent control variable. Applicants have thoroughly briefed and argued[20], and the Board has previously agreed with[21], this point, and thus Applicants now offer a succinct summary of Musick and these arguments based on the previous record.

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[15] *See* Final Office Action dated February 9, 2007 ("Final OA"), pp. 2-10; see also Examiner's Supplemental Answer dated July 18, 2006, pp. 4-6.
[16] Applicants admit some confusion as to the propriety of the current rejection under § 103. Because the Examiner appears to be alleging that all elements of at least claim 31 are implicitly contained within a single reference, an anticipation by inherency rejection under § 102 would appear more appropriate, even if the Examiner is using multiple references to show inherency. *See* MPEP § 2131.01(C). However, because the Examiner has failed to demonstrate the applied references explicitly or implicitly teach or suggest each and every element of the claims, Applicants' argument to that effect is equally applicable against either a § 102 or § 103 rejection. *Compare* MPEP § 2131 *with* MPEP § 2143.03 (both rejections requiring every element of the claims to be present in the prior art).
[17] *See* Final OA, pp. 8-9.
[18] *See* Final OA, pp. 9-10.
[19] *See* Musick Abstract, ll. 15-18.
[20] *See, e.g.*, February 10, 2005 Amendment after Final, pp. 6-7, 11-13.
[21] *See* Opinion in Support of the Decision, Appeal No. 2006-1486 (May 24, 2006).

Musick uses "worst case" input data to generate operating limits that ensure the reactor may be safely shut down should the "worst case" occur.[22] In order to generate such operating limits, Musick bases its calculation on modified, or false, data that simulates a variety of conditions that may approximate the worst case scenario.[23] Musick then maintains an actual operating state based on the generated worst case limits.[24]

The modified and false input data sets used in Musick do not meet the claim element of an optimization based on "state-point data," which includes "current values for independent control variables and for dependent performance variables of the operating nuclear reactor." That is, the state-point data of claim 31 is data reflecting the actual, current operating conditions of the nuclear reactor, whereas the worst case data used to calculate operating limits in Musick is deliberately non-reflective of actual operating conditions.

Further, the different data sources highlight that Musick generates only operating limits and does not generate independent control variables as recited in claim 31. Musick, using worst-case data, generates limits beyond which control variables may not pass in order to safely shut down the reactor in a worst case scenario.[25] The generated limits do not provide claim 31's independent control variable that may be implemented in operating the plant; rather, Musick's limits merely dictate what aggregated independent control variable ranges may require shutdown of the plant.

The Examiner alleges that Musick generates an independent control variable, pointing to a calculation in Musick using Reactor Coolant Flow Rate, which is an example

[22] Col. 6, ll. 15-28.
[23] Col. 6, ll. 36-44.
[24] Col. 6, ll. 22-29; Col. 8, ll. 46-51.
[25] Col. 11, l. 63 – Col. 12, l. 4.

embodiment independent control variable discussed in the present application.[26] The Reactor Coolant Flow Rate, however, is not generated by any step in Musick – the Reactor Coolant Flow Rate is being used to generate DNBR, a fuel design limit.[27] This only further illustrates the difference between a design limit and an independent control variable.

Lastly, Musick does not teach or suggest any optimization to generate an independent control variable. Applicants respectfully reiterate that Musick provides for shutting down the reactor safely; that is, rendering the reactor non-functional, or at the very most, barely functional. This is not an optimizing operation, which makes reactor operation reasonably perfect, functional, or effective.[28]

The Examiner relies on Musick's teaching of a system that "allows operation of the reactor close to [the generated] limits to maximize reactor efficiency and availability"[29] to show optimization based on state-point data that generates an independent operational variable.[30] These permissive statements in Musick's background section indicate only that Musick's limit-determining systems are capable of operating in a plant with optimized independent control variables. Musick does not further elaborate or in any way sufficiently teach how such optimization may be performed or how independent control variables may be generated by the optimization.

The Examiner relies on Dozier, Knollenberg, and Pryor to show how maximization of plant availability and efficiency inherently optimizes an independent control value. This

[26] See Final OA, p. 3.
[27] Col. 13, ll. 20-27.
[28] *See* Final OA, p. 8.
[29] Col. 5, ll. 32-46 (emphasis added).
[30] See Final OA, p. 4.

is beside the point - even if the Examiner's additional Dozier, Knollenberg, and Pryor references illustrated optimization of an independent control variable as a result of maximized plant efficiency and availability, Musick fails, *ab initio*, to teach maximized plant efficiency and availability, with which its distinct system may be compatible. The Board has previously said as much in its May 25, 2006 decision in this case, stating:

> The portion of Musick relied upon by the examiner discloses that"[i]n the art of reactor control the objectives to be achieved are the maximization of plant capacity and availability without violating the specified acceptable fuel design limits as a result of normal operation and anticipated operational occurrences" (col. 8, lines 24-28). Musick determines the design limits (col. 6, lines 15-18). The examiner has not established that Musick discloses, or would have fairly suggested, to one of ordinary skill the art, determining the optimum within those limits.

In Dozier, Knollenberg, and Pryor, the Examiner has failed to identify prior art sufficiently teaching the optimization process of the claims.

In sum, Musick fails to teach 1) "an optimization process," 2) "based on the received state-point data," to 3) "generate one or more independent control variable values." Musick, instead, teaches a system for monitoring a <u>safe shutdown process</u> based on <u>modified operational data</u> to generate a <u>design limit</u>. As discussed above, these three elements are distinct and substantially different from the language of claim 31. Thus Musick fails to teach or suggest each and every element of the claim 31, and thus cannot anticipate or render obvious claim 31. The Dozier, Knollenberg, and Pryor references are relied upon to teach only optimization of an independent control variable due to maximized capacity and plant availability; they do not teach, nor are they relied upon by the Examiner for, teaching an

optimization process based on received state-point data to generate one or more independent control variable values lacking from Musick.

Thus Musick, alone or in combination with Dozier, Knollenberg, and Pryor, cannot anticipate or render obvious claim 31. Claims 32-39, dependent on claim 31, are patentable at least for the reasons stated above with respect to claim 31. Applicants respectfully request reversal of the rejections under § 103(a). Applicants respectfully request reversal of the rejections under § 103(a), or, alternatively, under § 102.

iii. Claims 40-41

The Examiner rejects claims 40-41 over Musick in view of any one of Dozier, Knollenberg, and Pryor in further view of Takeuchi.[31] Specifically, the Examiner applies Musick, Dozier, Knollenberg, and Pryor to claims 40-41 as they applied to claims 31-39 and relies on Takeuchi to teach the use of simulating plant data for evaluating plant conditions.[32]

Applicants respectfully submit that Takeuchi does not cure the disclosure and suggestion deficiencies discussed above with regard to Musick, Dozier, Knollenberg, and Pryor and claim 31. Specifically, Takeuchi is silent with regard to optimization processes based on received state-point data used to generate one or more independent control variable values and is limited to implementation of simulation results. Thus Musick, Dozier, Knollenberg, and Pryor, alone or in combination with Takeuchi, cannot anticipate or render obvious claims 40-41 by virtue of their dependency from claim 31 as discussed above.

Applicants further submit that, even if Takeuchi, Musick, Dozier, Knollenberg, and Pryor, alone or in combination, disclosed each element of claim 31 (which they do not),

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[31] *See* Final OA pp. 10-11.
[32] *Id.* at 11.

these references would still fail to teach the elements of claim 40. Specifically, the references fail to teach or suggest a simulation followed by generation of unique "transfer functions" used to determine optimized independent control variables as recited in claim 40. None of the references teach any element analogous to the "transfer functions" as defined and used in claim 40, nor does the Examiner identify such elements in the applied art.

Instead, the Examiner appears to rely on Takeuchi's teaching of simulation to account for each and every element of claim 40.[33] The Examiner's detailed position of why Takeuchi makes obvious claim 40 is contained in the statement: "Takeuchi et al. teach the use of simulated plant data for evaluating plant conditions. (see Abstract)." Besides the recitation of "simulating reactor operation", claim 40 further recites:

> generating transfer functions based on the sets of independent control variable values and the sets of dependent performance variable values, the transfer functions representing functional relationships between the independent control variables and the dependent performance variables; and
>
> determining a set of independent control variable values for possible use in operating the operating nuclear reactor using the transfer functions.

Neither of these limitations are disclosed or suggested by Takeuchi, nor has the Examiner provided any basis with respect to Takeuchi that such limitations are taught. This reliance is neither sufficiently explicit nor elementally correct so as to support a prima facie obviousness rejection under § 103(a).[34] Applicants respectfully request reversal of the rejections to claims 40 and 41 under § 103(a).

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[33] *See* Final OA, pp. 10-11.
[34] *See In re* Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006).

B. <u>CONCLUSION:</u>

Appellants respectfully request the Board to reverse the Examiner's anticipation and/or obviousness rejections of claims 31-41.

The Commissioner is authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
HARNESS, DICKEY, & PIERCE, P.L.C.

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APPENDIX A.

Listing of Claims 31-41 on Appeal:

Claim 31. A method of determining independent control variable values for a nuclear reactor under operation, comprising:

receiving state-point data for the operating nuclear reactor, the state-point data including current values for independent control variables and for dependent performance variables of the operating nuclear reactor; and

performing an optimization process on one of a computer and computer network based on the received state-point data to generate one or more independent control variable values.

Claim 32. The method of claim 31, further comprising:

receiving a change in at least one constraint of the nuclear reactor operation; and wherein

the performing step performs the optimization process on one of a computer and computer network based on the received state-point data and the at least one changed constraint.

Claim 33. The method of claim 32, further comprising:

executing the performing step in response to receiving state-point data that differs from previously received state-point data.

Claim 34. The method of claim 31, further comprising:

executing the performing step in response to receiving state-point data that differs from previously received state-point data.

Claim 35. The method of claim 31, further comprising:

repeating the receiving and performing steps throughout operation of the operating nuclear reactor.

Claim 36. The method of claim 35, further comprising:

executing the performing step in response to receiving state-point data that differs from previously received state-point data.

Claim 37. The method of claim 31, further comprising:

displaying at least a portion of the state-point data.

Claim 38. The method of claim 37, further comprising:

displaying at least a portion of results from the performing step.

Claim 39. The method of claim 31, further comprising:

displaying at least a portion of results from the performing step.

Claim 40. The method of claim 31, wherein the optimization process comprises:

first simulating nuclear reactor operation for sets of independent control variable values to produce associated sets of dependent performance variable values;

generating transfer functions based on the sets of independent control variable values and the sets of dependent performance variable values, the transfer functions representing functional relationships between the independent control variables and the dependent performance variables; and

determining a set of independent control variable values for possible use in operating the operating nuclear reactor using the transfer functions.

Claim 41. The method of claim 40, wherein the first simulating step comprises:

treating the independent control variable values and the dependent performance variable values in the state-point data as a base set of independent control variable values and a base set of dependent performance variable values, respectively;

generating, from the base set of independent control variable values, modified sets of independent control variable values associated with each independent control variable in a selected group of independent control variables; and

simulating nuclear reactor operation for each of the modified sets of independent control variable values to produce modified sets of dependent performance variable values.

APPENDIX B – EVIDENCE SUBMITTED UNDER CFR 1.130, 1.131, OR 1.132

None.

APPENDIX C – DECISIONS RENDERED BY THE COURT OR THE BOARD IN RELATED APPEALS AND INTERFERENCES SECTION

A decision by the Board was rendered in this case on May 24, 2006, reversing the then-standing rejections and remanding the application to the Examiner, in the Opinion in Support of the Decision, Appeal No. 2006-1486. A copy of the decision is submitted herewith.